Draft 7/28/04

California Water Plan Update
Analytical Tools, Data & Scenarios Workshop
July 29, 2004

Factor Definitions

Total Population	The statewide total population projection regardless of geographical distribution.
Population Density	The average number of people per square mile for a planning area.
Population Distribution	The geographic location within California of the population projection.
Total Commercial Activity	Total commercial activity refers to all activities in the service-producing sectors, which include farm services, transportation, public utilities, trade, finance, insurance, real estate, services, and government. This factor is a driver of (and indicator for) commercial water use (business offices) as well as institutional water use (government offices, schools, etc.)
Commercial Activity Mix	The mix of high and low water using commercial activity. Note that Commercial Activity is broken into two factors: Total Activity and Activity Mix. The latter factor allows designation of the type of commercial activity that is occurring.
Total Industrial Activity	Total industrial activity refers to all activities in good-producing sectors, which include farm production, mining, construction, and manufacturing. This factor is a driver of (and indicator for) industrial water use. Note that Industrial Activity is broken into two factors: Total Industrial Activity and Industrial Activity Mix. The latter factor allows designation of the type of industry that is occurring. This is necessary to account for the large variation in water demands by industry type.
Industrial Activity Mix	The mix of high and low water using industrial activity. Note that Industrial Activity is broken into two factors: Total industrial Activity and Industrial Activity Mix. The latter factor allows designation of the type of industry that is occurring. This is necessary to account for large variation in water demands by industry type.
Total Crop Area	The total number of irrigated crop acres (by type) planted in a planning area. This number includes multiple cropping.
Crop Unit Water Use	Changes in the volume of water used per acre of cropped area due to changes in crop type. This can be a function of evapotranspiration rates and cultural practices, but NOT use efficiency. Ag use efficiency is captured under it's own distinct factor.
Environmental Water (Flow-Based)	The amount of water dedicated to instream uses and aquatic habitat.
Environmental Water (Land-Based)	The amount of water used for managed wetlands and native vegetation.
Naturally Occurring Conservation	The amount of background conservation occurring independent of the BMP and EWMP programs.

Urban Water Use Efficiency	Methods or technologies resulting in the same beneficial residential, commercial, industrial and institutional uses with less water or increased beneficial uses from existing water quantities.
Ag Water Use Efficiency	Methods or technologies resulting in the same beneficial agricultural uses with less water or increased beneficial uses from existing water quantities.
Per Capita Income	The average annual income from all sources per person for a planning area.
Seasonal/Permanent Crop Mix	Shifts in crop type between seasonal and permanent. This factor depicts the diminished ability to reduce water use during times of increased water scarcity (due to shifting from seasonal to permanent crops). In other words, shortage losses increase when shifting from season to permanent since.
Irrigated Land Retirement	The permanent fallowing of land previously under irrigation that results in a reduction in stresses to a water system (e.g. alternate land use must result in a reduction in water use or enhancement of water quality, etc.).
Hydrology	The annual volume and the monthly timing of runoff.
Climate Change	The impacts associated with changes in average annual temperature and precipitation and their monthly patterns in 2050 compared to today.
Colorado River Supply	The average annual volume of water imported to California from the Colorado River.
Existing Inter-Regional Import Projects	Existing storage and conveyance facilities that are used to move water from one hydrologic region to another.
Flood Management	Actions designed to reduce the risk of economic and environmental losses due to flooding. Actions can include watershed management, infrastructure reconstruction and operation, variations in land use practices, floodway designations, etc.
Energy Costs	Refers to the cost of energy use related to producing, conveying and applying water. It also refers to the cost of energy use for processes and inputs not directly related to water, but which can affect the demand for water (e.g. the cost of nitrogen fertilizer, tractor manufacturing, etc).
Ambient Water Quality	The natural quality of water that would be expected to occur in waters unaffected or not influenced by human activities.
Drinking Water Standards	State and federal regulations regarding water delivered by water purveyors that is used as a potable supply.
Ag Discharge Requirements	State and federal regulations regarding water returned to streams, rivers, groundwater aquifers or evaporation ponds by agricultural users.
Urban Runoff Management	The quantity of storm water and treated effluent that can be reused for beneficial purposes.
Recreation	Water-dependent recreation activities that are consumptive (e.g.parks),

	flat-water (e.g. boating), or flow-based (e.g. whitewater rafting).
Desalting	Removing salts from water, either partially or totally.
Recycled Water	Water that is treated (other than desalted) and put to a beneficial use.
Water Transfers Within Regions	Water that is transferred or exchanged within a given region resulting in a change in the place and/or type of use.
Water Transfers Between Regions	Water that is transferred or exchanged from one entity to another resulting in a change in the place and/or type of use. Does not include long-term contractual imports from other regions.
Integrated Ground & Surface Water Management	The coordinated operation of surface storage and groundwater storage systems to maximize reliability benefits.
Groundwater Storage	The volume and yield of usable groundwater storage in a given area.
Surface Water Storage	The volume and yield of usable reservoir storage in a given area.
Conveyance Facilities	Canals, pipelines, ditches, etc. used to move water from one area to another.
Rate Structure	Designates the rate basis for cost recovery (e.g., flat, uniform, tiered, etc.). Block/tiered rates are assumed to provide cost signals to consumers. Costs can include capital, O&M, financing, environmental compliance (documentation, permitting and mitigation), etc.
Cost Recovery	Designates who (marginal or existing users) pays the marginal and existing water costs. Also specifies circumstances where other revenue sources are used to recover costs. Costs can include capital, O&M, financing, environmental compliance (documentation, permitting and mitigation), etc.